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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Henry Stevens

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP

901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

ROHRHOFF, DANIEL J

ART UNIT

PAPER NUMBER

3637

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,146	Applicant(s) STEVENS, HENRY	
	Examiner DANIEL ROHRHOFF	Art Unit 3637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 232-270 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 232-270 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/7/10 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/7/10 has been entered.

Drawings

2. The drawings were received on 9/7/10. These drawings are acceptable.

Claim Objections

3. Claims 247, 248 & 268 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claims all recite limitations which are now present in claim 232

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 232, 234-249, 251, 253, 255, 259-260, 263, 267-268 & 270 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angelbeck, Jr. (US patent 3,636,888) (hereinafter Angelbeck) in view of Phillips et al. (US patent application publication 2002/0088379) (hereinafter Phillips) and Stevens (US patent 7,026,375).

6. Regarding claim 232, Angelbeck discloses a rotationally-moulded load-carrying pallet apparatus for carrying a load of at least 50 kilograms, wherein the apparatus comprises a platform (1) and a plurality of feet (6 & 13) that depend from the platform wherein the pallet apparatus is of a unitary structure moulded in a single rotational moulding process (abstract).

7. Angelbeck does not disclose wherein the pallet apparatus is manufactured substantially from and comprises a filled plastics material comprising: at least 10% by weight of a polymer; at least 25% by weight a mineral filler material comprising sand (§ 22); and at least 0.1% by weight but less than 10% by weight a unifier.

8. Phillips teaches a pallet wherein the pallet is manufactured substantially from a filled plastics material comprising: at least 10% by weight of a polymer (§ 22); and at least 25% by weight a mineral filler material comprising sand (§ 22). Stevens teaches a polymer used in manufacturing processes comprising a unifier (residual moisture, Col. 2: line 66-Col. 3: line 42) wherein the unifier makes up at least 0.1% by weight but less than 10% by weight (Col. 3: lines 11-12). It would have been obvious to one of ordinary skill in the art at the time of the invention to form the pallet of Angelbeck from a filled plastics material comprising: at least 10% by weight of a polymer; at least 25% by weight of a mineral filler material comprising sand; and at least 0.1% by weight but less

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than 10% by weight unifier as taught by Phillips and Stevens, since it would have created a waterproof pallet.

9. Regarding claim 234, Angelbeck, as modified, teaches an apparatus wherein the filled plastics material comprises at least 25% by weight polymer (Phillips: ¶ 22).

10. Regarding claim 235, Angelbeck, as modified, teaches an apparatus wherein the filled plastics material comprises from about 30% to about 70% by weight polymer and from about 70% to about 30% by weight mineral filler material (Phillips: ¶ 22).

11. Regarding claim 236, Angelbeck, as modified, teaches an apparatus wherein the material comprises at least 0.25% by weight of unifier (Stevens: Col. 3: lines 11-12).

12. Regarding claim 237, Angelbeck, as modified, teaches an apparatus wherein the material comprises less than 5% by weight of unifier (Stevens: Col. 3 lines 11-12).

13. Regarding claim 238, the product-by-process limitation “wherein the unifier is pre-mixed with the mineral filler” would not be expected to impart distinctive structural characteristics to the load carrying apparatus. Therefore, the claimed pallet apparatus is not different and unobvious from the pallet of Angelbeck, as modified.

14. Regarding claims 239-242, Angelbeck, as modified, teaches the unifier to comprise an internal lubricant comprising a fatty acid amide which is a straight or branched C₁₂-C₂₄ fatty acid amide comprising stearamide (Stevens: Col. 3: lines 30-42).

15. Regarding claims 243 & 267, Angelbeck, as modified, teaches an apparatus wherein the unifier comprises an external lubricant comprising a stearate (Stevens: Col. 3: lines 56-67).

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16. Regarding claim 244, Angelbeck, as modified, teaches an apparatus wherein the unifier comprises less than 20% by weight internal lubricant (Stevens: Col. 3: lines 50-55).

17. Regarding claim 245, Angelbeck, as modified, teaches an apparatus with an internal lubricant. Angelbeck, as modified, does not teach the unifier to comprise about 10% by weight internal lubricant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus to contain about 10% by weight internal lubricant, since the general condition of the claim are disclosed in the prior art, and it is not inventive to discover the optimum or workable ranges by routine experimentation. (MPEP 2144.05).

18. Regarding claim 246, Angelbeck, as modified, teaches an apparatus wherein the apparatus is rotationally moulded substantially in one piece (abstract).

19. Regarding claim 247, Angelbeck, as modified, teaches an apparatus wherein the apparatus comprises a pallet (Fig. 1).

20. Regarding claim 248, Angelbeck, as modified, teaches an apparatus wherein the pallet comprises a platform and a plurality of feet depending from the platform (Fig. 1).

21. Regarding claim 249, Angelbeck, as modified, teaches an apparatus wherein the feet of the pallet are regularly spaced over the lower surface of the platform (Fig. 1).

22. Regarding claim 251, Angelbeck, as modified, teaches an apparatus wherein at least one foot is arranged substantially at each corner of the platform of the pallet (Fig. 1).

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23. Regarding claim 253, Angelbeck, as modified, teaches an apparatus wherein at least one foot is arranged substantially at the centre of each edge of the platform of the pallet (Fig. 6).

24. Regarding claim 255, Angelbeck, as modified, teaches an apparatus wherein the pallet comprising an outer skin layer having an upper surface and a lower surface Fig. 6).

25. Regarding claim 259, Angelbeck, as modified, teaches an apparatus wherein the outer skin layer comprises more than about 50% by weight polymer (Phillips: ¶ 6 describes the outer layer to be a polyurea).

26. Regarding claim 260, Angelbeck, as modified, teaches an apparatus wherein the outer skin layer comprises more than about 60% by weight polymer (¶ 6 describes the outer layer to be a polyurea).

27. Regarding claim 263, Angelbeck, as modified teaches an apparatus wherein the filled plastics material further comprises a pigment (Phillips: ¶ 21).

28. Regarding claim 268, Angelbeck, as modified, teaches an apparatus wherein the apparatus comprises a pallet (Fig. 1).

29. Regarding claim 270, Angelbeck, as modified, teaches an apparatus wherein the apparatus is a freight container (Fig. 1).

30. Claims 233, 256-258, 261-262 & 266 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angelbeck in view of Phillips and Stevens, and further in view of Strebel (US patent 6,083,434).

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31. Regarding claims 233 & 266, Angelbeck, as modified, teaches the apparatus as claimed. Angelbeck, as modified, does not teach the polymer to comprise a high density polyethylene (HDPE). Strebel teaches a material comprising a high density polyethylene (Col. 3: line 64-Col. 4: line 12). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the pallet of Angelbeck, as modified, to include a high density polyethylene as taught by Strebel, since it would have adjusted the strength.

32. Regarding claim 256, Angelbeck, as modified, teaches the apparatus as claimed. Angelbeck, as modified, does not teach an apparatus wherein the pallet further comprises an inner layer having a different composition to the outer skin layer. Strebel teaches a pallet comprising an inner layer (foamed interior, see abstract) having a different composition to the outer skin. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the pallet apparatus of Angelbeck, as previously modified, to include an inner layer having a different composition to the outer skin layer as taught by Strebel, since it would have changed the strength of the pallet.

33. Regarding claim 257, Angelbeck, as modified, teaches the apparatus wherein the inner layer comprises a foaming agent (Strebel: Col. 5: 13).

34. Regarding claims 258 & 261, Angelbeck, as modified, teaches the apparatus wherein the inner layer comprises a mineral filler material (Strebel: Col. 5: 22-41). Angelbeck, as modified, does not teach an apparatus wherein the inner layer comprises at least 60% by weight of a mineral filler material. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus wherein the

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inner layer comprises at least 60 % by weight of a mineral filler material, since the general condition of the claim are disclosed in the prior art, and it is not inventive to discover the optimum or workable ranges by routine experimentation. (MPEP 2144.05).

35. Regarding claim 262, Angelbeck, as modified, teaches the apparatus as claimed. Angelbeck, as modified, does not teach an apparatus wherein the inner layer comprises a greater amount of filler by weight than the outer layer. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus wherein the inner layer comprises a greater amount of filler by weight than the outer layer, since the general condition of the claim are disclosed in the prior art, and it is not inventive to discover the optimum or workable ranges by routine experimentation. (MPEP 2144.05).

36. Claims 250, 252 & 254 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angelbeck in view of Phillips and Stevens, and further in view of Alexander et al. (US patent 5,666,886) (hereinafter Alexander).

37. Regarding claim 250, Angelbeck, as modified, teaches the apparatus as claimed. Angelbeck, as modified, does not teach an apparatus wherein the feet are arranged to enable lifting equipment to engage the pallet from any one of four directions. Alexander teaches a pallet whose feet are arranged to allow lifting equipment to engage the pallet from any one of four directions (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus wherein the feet are arranged to enable lifting equipment to engage the pallet from any one of four directions

as taught by Alexander, since it would have allowed the pallet to be engaged by a forklift from any direction.

38. Regarding claim 252, Angelbeck, as modified, teaches the apparatus as claimed. Angelbeck, as modified, does not teach an apparatus wherein at least one foot is arranged substantially at the centre of the platform of the pallet. Alexander teaches a pallet with a foot arranged at the center of the platform of the pallet (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus wherein a foot is at the centre of the platform as taught by Alexander, since it would have stabilized the center of the pallet.

39. Regarding claim 254, Angelbeck, as modified, teaches the apparatus as claimed. Angelbeck, as modified, does not teach an apparatus wherein each foot has a recess in the lower surface of the foot. Alexander teaches a pallet wherein the feet have a recess in a lower surface (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus wherein each foot has a recess in a lower surface of the foot as taught by Alexander, since it would have allowed liquids to drain out of the feet.

40. Claims 264-265 & 269 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angelbeck in view of Phillips and Stevens and further in view of Muirhead (US patent application publication 2002/0030597).

41. Regarding claim 264-265 & 269, Angelbeck, as modified, teaches the apparatus as claimed. Angelbeck, as modified, does not teach the pallet to include a remotely

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readable RFID tag moulded into the surface. Muirhead teach a pallet with a remotely readable RFID tag moulded into the surface of the pallet (§ 38). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the pallet of Angelbeck, as previously modified, to include a remotely readable RFID moulded into the surface tag as taught by Muirhead, since it would have allowed the pallet to be tracked and prevented damage to the RFID tag.

Response to Arguments

42. Applicant's arguments with respect to claim 232 stating Stevens and Phillips do not teach of unitary structure moulded in a single rotational moulding process have been considered but are moot in view of the new ground(s) of rejection. Angelbeck is introduced to teach a pallet of unitary structure moulded in a single rotational moulding process and Stevens and Phillips teach the materials from which the rotationally moulded pallet is formed.

43. Applicant's arguments with respect to the methods of forming a pallet by Phillips have been considered but are moot in view of the new ground(s) of rejection.

44. Applicant's arguments filed 9/7/10 have been fully considered but they are not persuasive.

45. Regarding applicant's argument stating Stevens teaches residual moisture to bind the polymer with the filler for transportation and the moisture is removed before the polymer is subjected to high temperatures associated with moulding process, the examiner disagrees. Stevens teaches the moisture content of the pellets to be less

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than 10% by weight (Col. 3: 11-12) thus it satisfies the claim limitation of a unifier in the plastic material.

46. Regarding applicant's argument stating Stevens teaches a lubricant to make the composition extrudable, not to bind the polymer and the filler together and thus is not suitable, the examiner disagrees. Both Stevens and Phillips teach compositions which are used in the forming of pallets and thus they are suitable for combination together.

47. Regarding applicant's argument stating Stevens is not suitable for making a pallet that can carry a load of at least 50 Kgs, the examiner disagrees. Stevens teaches its compositions are suitable for manufacture of substantially any article made using extrudable polymers (Col. 5: 12-15). This would include a pallet for 50 Kg loads.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL ROHRHOFF whose telephone number is (571)270-7624. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darnell Jayne can be reached on 571-272-7723. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. R./
Examiner, Art Unit 3637
6/7/11

/JANET M WILKENS/
Primary Examiner, Art Unit 3637